



ENGINEERING DATA SHEET

**RS30i**  
60Hz

CCN: 49187073  
Rev.: E  
ECN: 1145842  
Sheet: 1 of 1  
Date: October 21, 2016

Model		RS30i-A110	RS30i-A125	RS30i-A145	RS30i-A200	
<b>GENERAL PERFORMANCE DATA</b>						
Maximum Target Operating Pressure	(2)	barg (psig)	7.6 (110)	8.6 (125)	10.0 (145)	13.8 (200)
Rated Discharge Pressure		barg (psig)	6.9 (100)	7.9 (115)	9.3 (135)	13.1 (190)
Minimum Operating Pressure		barg (psig)	4.5 (65)	4.5 (65)	4.5 (65)	4.5 (65)
Maximum Operating Ambient Temperature		°C (°F)	46 (115)	46 (115)	46 (115)	46 (115)
Minimum Operating Ambient Temperature		°C (°F)	2 (36)	2 (36)	2 (36)	2 (36)
Maximum System Temperature Setting		°C (°F)	109 (228)	109 (228)	109 (228)	109 (228)
Nominal Power - Main Motor		kW (HP)	30 (40)	30 (40)	30 (40)	30 (40)
Main Motor Efficiency	(3)	%	94.1%	94.1%	92.4%	92.4%
Capacity FAD	(1)	m <sup>3</sup> /min (CFM)	5.6 (196)	5.2 (184)	4.7 (164)	3.7 (132)
Package Input Power with Fan - Air Cooled	(4)	kW	36.6	36.6	35.8	36.5
Specific Power - Air Cooled	(4)(5)	kW/m <sup>3</sup> /min (kW/100CFM)	6.60 (18.7)	7.01 (19.9)	7.71 (21.8)	9.78 (27.7)
<b>SOUND LEVEL</b>						
Noise Level Standard Package - Air Cooled	(6)	Sound Pressure - dB(A)	69	69	69	69
Noise Level Standard Package - Air Cooled		Sound Power - dB(A)	85	85	85	85
<b>COOLING DATA (@ Maximum Ambient Temperature &amp; Maximum Discharge Pressure)</b>						
Heat Removal (Oil Cooler)		kW (1000 Btu/hr)	29.5 (101)	29.7 (101)	28.3 (96)	29.5 (101)
Heat Removal (Oil and Aftercooler)		kW (1000 Btu/hr)	37.7 (129)	37.6 (128)	35.9 (123)	36.0 (123)
Permitted Additional Static Pressure		Pa (in H <sub>2</sub> O)	63 (.25)	63 (.25)	63 (.25)	63 (.25)
Fan Air Flow		m <sup>3</sup> /min (CFM)	108 (3826)	108 (3826)	108 (3826)	108 (3826)
Fan Motor Nominal Power		kW	1.1	1.1	1.1	1.1
Cooling Air Temperature Rise		°C (°F)	19 (34)	19 (34)	18 (32)	18 (32)
Aftercooler CTD	(7)	°C (°F)	10.5 (19)	10.5 (19)	10.5 (19)	10.5 (19)
<b>AIR END DATA</b>						
Male Rotor Speed		RPM	2574	2483	2213	1903
Tip Speed Rotor		m/sec	18.47	17.81	15.88	13.65
Full Load Shaft Power		kW	33.3	33.3	32.0	32.6
<b>COOLANT LUBRICATION DATA</b>						
Total Coolant Capacity - Air Cooled	(12)	litres (US gal)	15 (4.1)	15 (4.1)	15 (4.1)	15 (4.1)
<b>PIPING CONNECTIONS</b>						
Air Discharge	(8)	Inches NPT	1.5 INCH (FEMALE)	1.5 INCH (FEMALE)	1.5 INCH (FEMALE)	1.5 INCH (FEMALE)
Package Automatic Condensate Drain		Inches NPT	.25 INCH (FEMALE)	.25 INCH (FEMALE)	.25 INCH (FEMALE)	.25 INCH (FEMALE)
Coolant Drain - Hose Size		Inches	0.875	0.875	0.875	0.875
Diameter of Power Inlet		mm (Inches)	120 (4.7)	120 (4.7)	120 (4.7)	120 (4.7)
<b>DIMENSIONS AND WEIGHT</b>						
Length, Width, Height		mm (inches)	1937, 1056, 1534 (76.42, 60)	1937, 1056, 1534 (76.42, 60)	1937, 1056, 1534 (76.42, 60)	1937, 1056, 1534 (76.42, 60)
Net Weight - Air Cooled		kg (lb.)	1045 (2304)	1045 (2304)	1037 (2286)	1037 (2286)
GA Drawing Number - Air Cooled			49182587	49182587	49182587	49182587
<b>ELECTRICAL DATA</b>						
Motor Protection	(13)		TEFC, IP55	TEFC, IP55	TEFC, IP55	TEFC, IP55
Full Load Package Current - Air Cooled	(9)	Amps @ 200V	140	140	130	132
		Amps @ 230V	122	122	113	115
		Amps @ 380V	74	74	69	70
		Amps @ 460V	61	61	57	58
		Amps @ 575V	49	49	45	46
Main Motor Locked Rotor Current	(10)(14)(15)	Amps @ 200V	1008	1008	1269	1269
		Amps @ 230V	877	877	1103	1103
		Amps @ 380V	531	531	668	668
		Amps @ 460V	439	439	552	552
		Amps @ 575V	351	351	442	442
Package Power Factor			0.84	0.84	0.88	0.88
<b>Electrical Installation</b>						
Recommended Supply Cable Size	(10)	mm <sup>2</sup> Cu (AWG) @ 200V	50 (1/0)	50 (1/0)	50 (1/0)	50 (1/0)
		mm <sup>2</sup> Cu (AWG) @ 230V	35 (1 AWG)	35 (1 AWG)	35 (1 AWG)	35 (2 AWG)
		mm <sup>2</sup> Cu (AWG) @ 380V	25 (4 AWG)	25 (4 AWG)	25 (4 AWG)	25 (4 AWG)
		mm <sup>2</sup> Cu (AWG) @ 460V	16 (6 AWG)	16 (6 AWG)	16 (6 AWG)	16 (6 AWG)
		mm <sup>2</sup> Cu (AWG) @ 575V	10 (8 AWG)	10 (8 AWG)	10 (8 AWG)	10 (8 AWG)
Maximum Recommended Fuse Rating	(10)(11)	Amps @ 200V	250	250	250	225
		Amps @ 230V	200	200	200	200
		Amps @ 380V	125	125	125	125
		Amps @ 460V	100	100	100	100
		Amps @ 575V	80	80	80	80

- Notes:**
- (1) FAD (Free Air Delivery) is full package performance including all losses. Tested per ISO 1217 : 2009 Annex C
  - (2) Maximum pressure at package discharge, value at which compressor will stop when unit operating at maximum target pressure
  - (3) IE3 efficiency motor
  - (4) Measured at rated capacity and rated pressure
  - (5) Specific power guaranteed in accordance with ISO 1217 : 2009 Annex C
  - (6) Measured in free field conditions per ISO 2151 using Hemispherical Method; ducted inlet and outlet, with + 3 dB(A) tolerance.
  - (7) CTD based on 100°F/38°C inlet air at 40% Relative Humidity (For alternate conditions contact Ingersoll Rand)
  - (8) BSPT or NPT, depending on regional standard
  - (9) Maximum current includes 10% additional current due to fouled filters and elements
  - (10) 90°C copper cables. Always apply local electrical codes for sizing cables and system protection.
  - (11) Time delay fuse recommended. Apply local electrical codes for fuse sizing
  - (12) Coolant volumes listed are approximate. See operator manual for coolant fill procedure.
  - (13) 60Hz (±0.5%) motor voltage tolerance: (208)±10%; (220)±10%; (230)±10%; (380)-6/+10%; (440) ±10%; (460) ±10%; (575) -6/+10%
  - (14) Star-Delta starting current inrush is about 33% of direct starting current
  - (15) During the Star-Delta open-starting transition, the in-rush current value could instantaneously peak from 1.8 to 2.8 times the noted Locked-Rotor-Amperage (LRA) values

Product Improvement is a continuing goal at Ingersoll Rand. Design and specifications are subject to change without notice or obligation.